AMENDMENTS TO THE CLAIMS:

The following is a complete listing of all claims, including amendments, with a status identifier in parenthesis:

Listing of Claims

19. (Currently Amended) Device for ~~the~~ carrying out ~~of~~ chemical or biological reactions comprising:

~~with~~ a reaction vessel receiving element, wherein the reaction vessel receiving element is configured to receive one ~~for receiving a~~ microtiter plate ~~with several reaction vessels, wherein the reaction vessel receiving element has several recesses arranged in a regular pattern to receive the respective reaction vessels,~~ ;

~~a~~ two or more heating devices ~~device~~ for heating the reaction vessel receiving element; and

a cooling device for cooling the reaction vessel receiving element,

wherein a) the reaction vessel receiving element is divided into several segments, wherein each segment receives a portion of the microtiter plate, b) each segment is assigned one of the ~~a~~ heating devices ~~device~~, wherein the heating devices may be actuated independently of one another, and c) the individual segments are thermally decoupled in such a way that different temperature levels may be set and maintained in two adjacent segments.

20. (Previously Presented) Device according to claim 19, wherein each segment of the reaction vessel receiving element is assigned a cooling device, wherein the cooling devices may be actuated independently of one another.

21. (Previously Presented) Device according to claim 19, wherein the segments of the reaction vessel receiving element are each comprised of a base plate with one or more tubular, thin-walled reaction vessel holders, which form one piece together with the base plate.

22. (Previously Presented) Device according to claim 20, wherein the segments of the reaction vessel receiving element are each comprised of a base plate with one or more tubular, thin-walled reaction vessel holders, which form one piece together with the base plate.

23. (Previously Presented) Device according to claim 19, wherein the individual segments are thermally decoupled by means of an air gap formed between adjacent segments.

24. (Previously Presented) Device according to claim 22, wherein the individual segments are thermally decoupled by means of an air gap formed between adjacent segments.

25. (Previously Presented) Device according to claim 19, wherein the individual segments are thermally decoupled by means of a gap, formed between adjacent segments, in which a thermal insulator is inserted.

26. (Previously Presented) Device according to claim 24, wherein the individual segments are thermally decoupled by means of a gap, formed between adjacent segments, in which a thermal insulator is inserted.

27. (Currently Amended) Device according to claim 19, wherein each of the heating devices has a Peltier element, wherein in each case one segment of the reaction vessel receiving element is assigned a Peltier element, and the Peltier elements are thermally coupled to the respective segments.

28. (Previously Presented) Device according to claim 26, wherein each of the heating devices has a Peltier element, wherein in each case one segment of the reaction vessel receiving element is assigned a Peltier element, and the Peltier elements are thermally coupled to the respective segments.

29. (Previously Presented) Device according to claim 19, wherein the cooling devices comprise a Peltier element and/or a heat exchanger, wherein in each case one segment of the reaction vessel receiving element is assigned a Peltier element and/or a heat exchanger.

30. (Previously Presented) Device according to claim 29, wherein the cooling devices comprise a Peltier element and/or a heat exchanger, wherein in each case one segment of the reaction vessel receiving element is assigned a Peltier element and/or heat exchanger.

31. (Previously Presented) Device according to claim 29, wherein the heat exchanger is provided with cooling ducts though which a fluid may flow, wherein the fluidic flow of individual heat exchangers may be controlled independently of one another.

32. (Previously Presented) Device according to claim 30, wherein the heat exchanger is provided with cooling ducts through which a fluid may flow, wherein the fluidic flow of individual heat exchangers may be controlled independently of one another.

33. (Previously Presented) Device according to claim 31, wherein that the fluid is a cooling fluid, in particular water.

34. (Previously Presented) Device according to claim 32, wherein that the fluid is a cooling fluid, in particular water.

35. (Previously Presented) Device according to claim 19, wherein the reaction vessel receiving element is divided into at least four segments.

36. (Previously Presented) Device according to claim 34, wherein the reaction vessel receiving element is divided into at least four segments.

37. (Previously Presented) Device according to claim 19, wherein the individual segments each have the same number of recesses.

38. (Previously Presented) Device according to claim 36, wherein the individual segments each have the same number of recesses.

39. (Previously Presented) Device according to claim 19, wherein on their side edges the segments have downwards-facing hook elements by which they rest on ties.

40. (Previously Presented) Device according to claim 38, wherein on their side edges the segments have downwards-facing hook elements by which they rest on ties.

41. (Previously Presented) Device according to claim 19, wherein each segment is assigned a temperature sensor with which the temperature of the segment concerned is sensed, with the temperature of the segment being controlled on the basis of the temperatures sensed by the individual sensors.

42. (Previously Presented) Device according to claim 40, wherein each segment is assigned a temperature sensor with which the temperature of the segment concerned is sensed, with the temperature of the segment being controlled on the basis of the temperatures sensed by the individual sensors.

43. (Previously Presented) Device according to claim 19, wherein each segment is assigned one or more temperature equalisation elements.

44. (Previously Presented) Device according to claim 42, wherein each segment is assigned one or more temperature equalisation elements.

45. (Previously Presented) Device according to claim 19, wherein it has a control unit to actuate the heating device and the cooling device, wherein the control unit is so designed that the cooling devices of the individual segments may be actuated individually.

46. (Previously Presented) Device according to claim 44, wherein it has a control unit to actuate the heating device and the cooling device, wherein the control unit is so designed that the cooling devices of the individual segments may be actuated individually.

47. (Previously Presented) Device according to claim 45, wherein in one operating mode the control unit actuates only a part of the segments, wherein the segments have side edges, and the segments adjoining the side edges of an actuated segment are not actuated.

48. (Previously Presented) Device according to claim 46, wherein in one operating mode the control unit actuates only a part of the segments, wherein the segments have side edges, and the segments adjoining the side edges of an actuated segment are not actuated.

49. (Previously Presented) Device according to claim 45, wherein in one operating mode the segments are so actuated that the temperature difference between adjacent segments is less than a predetermined temperature difference (ΔT).

50. (Previously Presented) Device according to claim 48, wherein in one operating mode the segments are so actuated that the temperature difference between adjacent segments is less than a predetermined temperature difference (ΔT).

51. (New) Device for carrying out chemical or biological reactions comprising:

a reaction vessel receiving element, wherein the reaction vessel receiving element is configured to receive one microtiter plate;

a heating device for heating the reaction vessel receiving element; and

two or more cooling devices for cooling the reaction vessel receiving element,

wherein a) the reaction vessel receiving element is divided into several segments, wherein each segment receives a portion of the microtiter plate, b) each segment is assigned one of the cooling devices, wherein the cooling devices may be actuated independently of one another, and c) the individual segments are thermally decoupled in such a way that different temperature levels may be set and maintained in two adjacent segments.

52. (New) Device according to claim 51, wherein each segment of the reaction vessel receiving element is assigned a heating device, wherein the heating devices may be actuated independently of one another.